CHAPTER III

CASE STUDY

METHODOLOGY
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CHAPTER III
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3.1 INTRODUCTION:

Literature review is presented in the second chapter. This chapter begins with theoretical orientation and approaches adopted in this study followed by explanations of quantitative and qualitative research paradigms and methodological options together with a brief account of what constitutes research and how it affects the paradigms that influence people’s understanding and their worldviews. These are followed by an examination of the qualitative paradigm, coupled with the methodological approach of this study. The chapter provides the reasons for the selection of the methodology. This chapter also presents the research designs used in the study with explanation of selection of research design and development of the tools as well as the methods of data collection and its analysis. The chapter ends with ethical consideration of the present study and a brief summary of the chapter.

3.2 THEORETICAL ORIENTATION:

The purpose of theory in research, according to Weirsma, (1995), is to help the researcher to establish a framework where the researcher can start from and then proceed with the study. The theory identifies important factors that need consideration, provides guidance to different parts of the research and identifies gaps, weak points, and inconsistencies that may require further research (ibid). In qualitative research, a theory is developed in the process of research. However, if no theory is generated, the study may change focus, or be dropped or be refined as the study progresses (Weirsma, 1995). If the theory is based on data, it will form a grounded theory. “A theory grounded in data rather than one based on
some apriori constructed ideas, notions or systems” (Weirsma, 1995. p.13). If no theory emerges, the research is atheoretical. (ibid). Quantitative research is deductive and tends to be more theory-based from the outset. Likewise, “if theory-based testing is done, it is quantitative research” (Weirsma, 1995. p.13). To gain information, to form a theory and provide validity to this research topic, the study uses a qualitative paradigm. However, to justify the research paradigm used in the present study, first of all qualitative and quantitative paradigms are compared.

3.2.1 Quantitative Research Paradigm:

The quantitative is “termed the traditional, positivist, the experimental or the empiricist paradigm” (Creswell, 1994. p.4). The thinkers that established the empiricist tradition are, for social theory, Comte (1975), Mill (1965), Durkherm (1938, cited in Clark, 1997), Newton and Lock (cited in Creswell, 1994) while in philosophy, the logical positivists were Carnap, Feigl, and Neurath in the twentieth century, (Clark, 1997). Quantitative research can be classified as experimental and non-experimental enquiry which uses objective measurements and statistical analyses of numeric data to understand and explain a phenomenon (Ary, et. al., 2006). It is originated in positivism. The positivist emphasises measurement to gather data with objective techniques to answer questions. It is a research that is systematic and open to replication by other investigators (ibid) According to Clark (1997), “positivism has its origin in the enlightenment ideal of the rejection of philosophical, religious or civil authority. The clearest expression of this ideal is found in the work of Hume’s (1888) treatise in human nature” (p.12). Hume sought to ground knowledge in sensory experience, distinguishing knowledge from metaphysics (Clark 1997).
The nature of understanding about the assumptions of the quantitative paradigm is better understood when it is explained based on ontological, epistemological, axiological, rhetorical and methodological assumptions (Creswell, 1994). For the ontological issues in research, quantitative perspectives see reality as “objective” out there, independent from the researchers; something that can be measured objectively (Creswell 1994). Epistemologically, this paradigm views the researcher as being independent from that being researched. From an axiological standpoint, the values of the researcher are kept out of the study. Rhetorically, the language of the research must not only be impersonal or formal but it has to use accepted words for quantitative research. From a methodological perspective of quantitative research, the approaches used are in deductive forms of logic within theories and hypothesis based on testing in a cause-and-effect order (Creswell, 1994).

The results generated from quantitative research are portrayed as reliable. Reliability in quantitative research “concerns the consistency of the research and the extent to which studies can be replicated” (Weirsma, 1995, p.9). There are two forms of reliability; internal reliability and external reliability. For internal reliability, the data collection, analysis, and interpretation are consistent and given the same conditions. For external validity, concerns include issues of whether or not independent researchers can replicate studies in the same time or in similar settings (Weirsma, 1995, p.5).

A quantitative paradigm has positive contributions to make to research. However, this study is using a qualitative paradigm. The reasons provided here justify the choice: firstly, it is not time-consuming, not complicated for analysis, not demanding for research resources and easier to complete (Creswell, 1994). Secondly, it involves conversations between the researcher and the researches, whereby rich data is believed to be forthcoming for the study.
Following are the different types of quantitative research methods.

1) Descriptive Survey Research
2) Experimental Research,
3) Single — Subject Research
4) Causal — Comparative Research
5) Correlational Research,
6) Meta-analysis.

3.2.2 Qualitative Research Paradigm:

Denzin and Lincoln (2008), summarise the definition of qualitative research as “a situated activity that locates the observer in the world. It consists of a set of interpretive, material practises that make the world visible” (p.4). Furthermore “qualitative research is rooted in phenomenology” (Ary et.al., 2006, p.25). In this theoretical view, the substance, social reality is unique; the individual and the world are viewed as interconnected and cannot be separated or function without each other (ibid). Ary, et. al. (2006) further explain that the researcher can only understand human behaviour through the meanings of events that people are involved in. The constructivist researcher does not only consider people but considers how people think and feel and the experiences that have happened to them (ibid). These practices, as Denzin and Lincoln (2008) pointed out, have transformed the world from the positivist position. Constructivism has turned the positivist world into representations such as field notes, interviews, conversations, recordings and memos.

There are different merits to qualitative research, which are considered vital as compared to a quantitative approach. In qualitative research, the main focus is to examine a phenomenon in rich detail and not as a comparison of relationship as in quantitative approaches (Ary, et. al., 2006). Secondly, the design of qualitative research evolves during the
study and not prior to the study. Third, the study is approached inductively, to generate the theory and not deductively whereby tests are done to generate a theory. Fourth, the tools used require face-to-face interaction without standardised instruments. Next, samples are small and manageable, and analyses are informed by narrative descriptions and interpretations. Importantly, qualitative research is holistic, interpretative and empathetic. It is holistic in its concern with the process and context rather than simply outcomes and experiments research” (Stake, citied in Conrad and Serlin, 2006, p. 407). This means that qualitative researchers “consider, studying things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meaning people bring with them” (Denzin and Lincoln, 2008, p.4).

This research required a qualitative approach to collect “information-rich data” (Patton, 2002). However, to avoid invalidity qualitative researchers have to be aware of their own biases, and, to maintain the integrity of research, try to meet challenges they encounter along the way (Gay and Arasian, 2000). What is validity then as opposed to invalidity? Validity in qualitative research in general, as Weirsma (1995) points out, is based on facts or evidence that are justified as being true. Validity involves two concepts, internal validity and external validity. For internal validity, results can be interpreted accurately. For external validity results can be generalised to population, situation, and condition (Weirsma, 1995). Three considerations are of note within a qualitative research framework. The research is placed in a natural setting where the researcher is able to access sites and participants, using methods that are “interactive and humanistic in order to build rapport and credibility with the individuals in the study” (Creswell, 2003, p.8). The study focuses on observing a variety of perceptions to allow for multiple sources of evidence to be obtained from participants (Creswell, 1994). The researcher is also able to explore the phenomena in their natural
settings (Anderson, 2002) and to makesense of, or interpret the phenomena in terms of the meanings people bring with them (Denzin and Lincoln, 1994).

Different types of qualitative research methods are mentioned below.

1) Case study
2) Ethnography
3) Phenomenological Research
4) Narrative Research
5) Historical Research.

The present study was qualitative in nature and researcher has selected case study research methodology.

3.3 THE CASE STUDY METHODOLOGY:

The literature contains numerous examples of applications of the case study as a methodology. The earliest and most natural examples are to be found in the fields of Law and Medicine, where "cases" make up the large body of the student work. However, there are some areas that have used case study techniques extensively, particularly in government and in evaluative situations. In both types of investigations, merely quantitative techniques intended to obscure some of the important information that the researchers needed to uncover. There were also specific examples of case studies in education, and management information system. It is a fact that case studies do not need to have a minimum number of cases, or to randomly "select" cases. The researcher is called upon to work within the situation that presents itself in each case.

The researcher has decided to study the developmental aspects of "Sarva Vidyalaya Kelvani Mandal, Kadi". This educational trust was established in 1919 and at present it is one of the biggest public trusts in Gujarat. It is very interesting to know why the trust was established, how
it is developed and how it helps the society to develop. The researcher believes that the study will throw light in above raised questions. According to Yin (1994) case studies are the preferred strategy when ‘how’ or ‘why’ questions are being posed and when the investigator has little control over events, and when the focus is on contemporary phenomena within some real-life context. Case study allows an investigation to retain the holistic and meaningful characteristics of organizational and managerial processes. The study of development of “Sarva Vidyalaya Kelvani Mandal, Kadi” becomes a case to investigate.

3.3.1 Definition of case study:

The most frequent encountered definitions of the case studies have merely repeated the types of topics to which case studies have been applied.

For example, in words of one observer, the essence of the case study is that it tries to illuminate a decision or set of decisions: why they were taken, how they were implemented, and with what result (Schramm, 1971). This definition thus cites the topic of the ‘decision’ as the major focus of case studies.

In the Dictionary of Sociology, the following in full citation has been found:

*Case Study* is the detailed examination of a single example of a class of phenomena, it may be useful in the preliminary stages of an investigation since it provides hypotheses, which may be tested systematically with a larger number of cases. (Abercrombie, Hill, & Turner, 1984).

Yin (1984) explained case study more technically as: a case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources are used.
This definition not only helps us to understand case studies but also distinguish them from the other research strategies.

Gerring (2007) also described as: A case study may be understood as the intensive study of a single case where the purpose of the study is — at least in part — to shed light on larger classes of cases (population).

### 3.3.2 Designs under case study:

Case studies can be single or multiple-case designs, where a multiple design must follow a replication rather than sampling logic. In multiple case studies, a number of cases are studied. This is to investigate some general phenomenon. When no other cases are available for replication, the researcher is limited to single-case designs.

Yin (1994) pointed out that generalization of results, from either single or multiple designs, is made to theory and not to populations. Thus case study evaluations can cover both process and outcomes, because they can include both quantitative and qualitative data.

Yin (1993) listed several examples along with the appropriate research design in each case. There were suggestions for a general approach to designing case studies, and also recommendations for exploratory, descriptive and explanatory case studies. Each of those three approaches can be single or multiple-case studies, where multiple-case studies are replicatory, and not sampled cases.

**a) Exploratory case studies:**

When it is necessary to explore those situations in which intervention being evaluated has no clear, single set of outcomes. Researches in business related subjects sometimes limit case studies to the exploratory use. For example, pilot case study can be used as a basis for formulating questions or hypothesis testing.
b) Descriptive case studies:

Descriptive case study is used when the researcher describe the real-life context in which an intervention has occurred.

C) Explanatory or causal case studies:

Explanatory or causal case studies can be used when it is necessary to explain the causal links in real life interventions that are too complex for the survey or experimental strategies. Explanatory research can be useful for example to study processes in companies.

Yin (1984) also suggested four types of designs based on the assumption that single- and multiple-case studies reflect different design considerations and that within these two types, there also can be a unitary or multiple units of analysis. For the case study strategy, the four types of designs are as follows.

1. Single case (holistic) designs
2. Single case (embedded) designs
3. Multiple-case (holistic) designs
4. Multiple-case (embedded) designs

These designs can be explained in the following figure.

FIGURE 3.1
Types of Case Study Design

<table>
<thead>
<tr>
<th>Holistic (Single unit of analysis)</th>
<th>Multiple-Case Designs</th>
<th>Single-Case Designs</th>
</tr>
</thead>
<tbody>
<tr>
<td>TYPE-1</td>
<td>TYPE-2</td>
<td></td>
</tr>
<tr>
<td>TYPE-3</td>
<td>TYPE-4</td>
<td></td>
</tr>
</tbody>
</table>

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If the case study examined only the global nature of the programme, a holistic design would have been used. Sometimes the same case study may involve more than one unit of analysis. This occurs when, within a single case, attention is also given to a subunit or subunits. Such a design would be called an embedded case study design. The subunits can often add significant opportunities for extensive analysis.

3.4 RESEARCH DESIGN:

Yin (1994) identified five components of research design that are important for case studies:

1) A study's questions
2) Its propositions, if any
3) Its unit(s) of analysis
4) The logic linking the data to the propositions
5) The criteria for interpreting the findings

(Yin, 1994, p. 20).

For the present study, the single case study approach has been chosen, which is appropriate to the phenomenon being studied. Looking to the theoretical background of the designs of the case study, the present study is the descriptive case study having embedded case study design.

3.5 POPULATION AND SAMPLE:

Garrett (1981) describes that, “A sample may be expressly chosen because, in the light of available evidence, it mirrors some larger group with reference to a given characteristic.

The sampling method in the present study was purposive because in the case study, collection of documents related to the case requires some familiarity with the case. The researcher has been working in Gandhinagar and familiar with the case therefore the case is purposefully selected. Since the overall purpose of the study was to study the
Developemental perspective of the selected organization with respect to historical, educational, social and economical perspective, the population and sample were similar. Hence the sampling units that are the institutes functioning under Sarva Vidyalaya Kelvani Mandal, Kadi were considered as the sample for the present study. That was nothing but the population itself.

3.6 TOOLS AND TECHNIQUES OF DATA COLLECTION:

There are a number of different sources and methods that researchers can use to gather information about an individual or group. The six major sources that have been identified by Yin (1994); Stake (1995) are:

1. Direct observation: This strategy involves observing the subject, often in a natural setting. While an individual observer is sometimes used, it is more common to utilize a group of observers.

2. Interviews: One of the most important methods for gathering information in case studies. An interview can involve structured survey-type questions, or more open-ended questions.

3. Documents: Letters, newspaper articles, administrative records, etc.

4. Archival records: Census records, survey records, name lists, etc.

5. Physical artifacts: Tools, objects, instruments and other artifacts often observed during a direct observation of the subject.

6. Participant observation: Involves the researcher actually serving as a participant in events and observing the actions and outcomes.
Under the present study the following tools were used to collect the qualitative as well as quantitative data.

1. Official Documents of the management: Different documents published by the trust have been used for data collection.

2. Articles: Different articles written on the activities of the ‘Sarva Vidyalaya Kelvani Mandal Kadi”, role of the Chairmen etc. were used for collection of information.

3. Visit: Personal visits were organized with aim to meet the Chairman of the trust, Campus Director of Gandhinagar and Kadi campuses. The data were also collected through visit.

4. Books: Following books were used as the second source of information regarding historical roots of the ‘Sarva Vidyalaya Kelvani Mandal Kadi”
   
   1. Pragyadeep Chhaganbha
   2. Karma Yogi Daskaka
   3. Karma Chudamani Maneklal
   4. Dhruv Tarak: Maneklal M. Patel
   5. Sarva Vidyalaya Kelvani Mandal no Itihas Granth

5. Questionnaire: The questionnaire was developed with the aim to collect response about the developmental aspects in context to educational, economical and social perspectives from the administrator of the trust and employees of the different institutions run by Sarva Vidyalaya Kelvani Mandal, Kadi.

6. Interview: Interview schedule was also designed to collect information.
3.7 DEVELOPMENT OF THE TOOLS:

In the present study different documents like administrative records published by the trust are used as primary sources of data collection. Different articles and books are also used for studying historical roots of the case as secondary resources.

A questionnaire was designed to collect the information about the case. A questionnaire for the administrators and employees was prepared to decide what aspects can be taken in educational, economical and social development of the case. In the questionnaire choice based questions as well as open ended questions were also asked. The first draft was sent to the guide and different subject experts (Appendix-1) for their valuable suggestions. The suggestions were incorporated and final draft of the questionnaire was prepared (Appendix-2). Following aspects were considered in the questionnaire.

1. Aspects related to the development of the case in context to Educational, Economical and Social perspectives
2. Factors contributing to the educational, economical and social development of the case
3. Milestone achievement of the case.
4. Development period of the case
5. Factors affecting development of the case.

Sometimes written documents do not provide all the information about the case. In such situation interview may help the researcher to collect details about the case. For the present study, interview schedule was also designed to collect the information. A semi structured interview schedule with open ended questions was also designed (Appendix-3) to collect the information.
3.8 METHOD OF DATA COLLECTION:

One of the strengths of case study research is that it encourages the use of a wide range of methods of data collection. The study thus drew upon two methods of distinct data collection viz. Document analysis of primary and secondary literature and Interviews.

1) Documents:

Document analysis is one of the methods of gathering information for the case study. Document analysis has the potential to inform and structure the decisions which are made by people on a daily basis (May, 1997). The documents constituted the readings of social events, goals, purposes, and aims. It informs readers about the aspirations, requirements and intentions of the period which were referred to, describing ideas, places and social relationships (May, 1997). Primary sources include historical documents, laws, declarations, and statutes (May, 1997). Other sources which are secondary to the first stated documents are people’s accounts of incidents or periods in which they were involved. For this study following documents (Appendix-4) were referred as the primary and secondary source of data collection.

1. The constitution of Sarva Vidyalaya Kelvani Mandal, Kadi.
2. Annual reports of Sarva Vidyalaya Kelvani Mandal, Kadi
3. Different pamphlets and leaflets published by Sarva Vidyalaya Kelvani Mandal, Kadi.

The following books written on Pujya Chhaganbha, the Chairman late Shri Maneklal and different articles were referred.

1. Pragyadeep Chhaganbha
2. Karma Yogi Daskaka
3. Karma Chudamani Maneklal
4. Dhruv Tarak: Maneklal M. Patel
5. Sarva Vidyalaya Kelvani Mandal no Itihas Granth
The purpose of using the Document Analysis method in this research is to gain a fair understanding of the aims and objectives behind establishment of the trust and development of the trust in context to historical, educational economical and social perspectives. It is also to collect information relating to the study for the purpose of consolidating data gained from the interview and visit. It is also to provide the basis for critical analysis of the document and interviews of respondents of the study with the documents, purposely, to justify the validity of the questions and statement of this study.

2) Interview:

Interviews are one of the most important sources of case study information as interviews aim to understand people and their activities (Burns, 1997; Erlandson, Harris, Skipper & Allen, 1993; Silverman, 2005). The interview is described as a verbal exchange, often face to face, in which interviewer tries to elicit information, belief or opinion from other person (Burns, 1997; Silverman 2005), There are several forms of interviews that are possible: Open-ended, Focused, and Structured or survey. In an open-ended interview, key respondents are asked to comment about certain events. They may propose solutions or provide insight into events. They may also corroborate evidence obtained from other sources. The focused interview is used in a situation where the respondent is interviewed for a short period of time, usually answering set questions. This technique is often used to confirm data collected from another source.

This study is used semi structured interview with open ended questions.
3.9 DATA ANALYSIS:

Yin (1994) encouraged researchers to make every effort to produce an analysis of the highest quality. In order to accomplish this, he presented four principles that should attract the researcher’s attention:

1. Show that the analysis relied on all the relevant evidence
2. Include all major rival interpretations in the analysis
3. Address the most significant aspect of the case study
4. Use the researcher’s prior, expert knowledge to further analysis

The present study drew upon qualitative methods in the analysis of the data collected from primary and secondary sources. The researcher has used all the relevant documents for the collection of the data and the data were analysed by using document analysis method. Interviews of five members were done and the data was analysed in two parts. Part-I is document analysis while Part-II is Interview analysis of responses collected from the participants.

3.10 ETHICAL CONSIDERATION:

Ethics, according to the Ninth New Collegiate Dictionary (1988, p.426 cited in Morris 2008, p. 2), indicates “what is good and bad and with moral duty and obligation.” Three meanings are usually associated with the term “ethics”. According to Newman and Brown (cited in Morries, 2008, p.2): the first focuses on fundamental principles of moral behaviour that should apply, at least in theory to everyone. The second refers to principles of conduct developed by, and for, members of a particular profession. The third involves the systematic study of the beliefs people hold, and the behaviours they exhibit relevant to morality. For this study, all three meanings are relevant and relate to ethical challenges found in the process of this research. For example, careful ethical consideration is required in order to carry out research on human
subjects. Ethical consideration includes "paying attention to the way in which the research is presented to potential participants, the likely impact of taking part in the research, the effects of sampling strategies, engaging with the researcher and dissemination sessions" (Barbour, R. 2008. pp.78 – 79). This research was subjected to the permission from the authority of the "Sarva vidyalaya Kelvani Mandal" and followed the ethical guidelines, ethical protocols and processes of the the trust. Next, each society has certain unique values that need to be carefully observed. People are bound by ethical regulations, designed to govern within well defined principles that are embedded on people's values. This conceptualisation relates to the meaning provided by Newman and Brown earlier in this section, stating that ethics is associated with moral behaviour, the beliefs people hold and the behaviours they exhibit. Therefore, to complement those requirements, this research had adhered to the following ethical considerations. The researcher ensured that the study did not cause harm to respondent participants. Prior to the study, approval was sought from appropriate authorities of the "Sarva vidyalaya Kelvani Mandal" and head of the institutions run by "Sarva vidyalaya Kelvani Mandal" who were involved in the study. The researcher ensured that the aims, objectives and guidelines of the study were thoroughly explained to the authority of the "Sarva vidyalaya Kelvani Mandal." The researcher ensured that, throughout the duration of the study, care was taken at all times.

3.11 SUMMARY:

This chapter has provided an overview of the theoretical orientation, quantitative and qualitative research paradigm, designs under case study research and activities that have shaped and guided this study from the stages of planning to data collection through to data analysis. The chapter continued by discussing how different deigns under case
study research are used. Qualitative research encourages rich descriptions of the methods used and the steps taken in order to make the methodology as repeatable as possible. There must first be an analytic strategy that will lead to conclusions. Yin (1994) presented two strategies for general use: One is to rely on theoretical propositions of the study, and then to analyze the evidence based on those propositions. The other technique is to develop a case description, which would be a framework for organizing the case study.
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